



0300  
02 ROM

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ATTORNEYS AT LAW

1055 PARSIPPANY BLVD.

PARSIPPANY, NEW JERSEY 07054

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FACSIMILE (973) 331-1717

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† SENIOR ATTORNEYS

August 16, 2001

Commissioner for Patents  
Washington, DC 20231-0001

I hereby certify this correspondence is being deposited with the United States Postal Service as first class mail, postpaid in an envelope, addressed to: Commissioner for Patents, Washington, D.C. 20231

Date: August 16, 2001

Signature: Barbara Kemmler

Re: U.S. Utility Application No. 09/754,853  
Filed: January 05, 2001  
For: Nucleic Acid Molecules and Other Molecules Associated with Soybean Cyst Nematode Resistance  
Inventors: Brian M. Hauge *et al.*  
Atty. Docket: 1193-3 (04983.0216.NPUS01/38-21)

Sir:

Transmitted herewith for appropriate action by the U.S. Patent and Trademark Office (PTO) are the following documents:

1. Response to Notice to Comply with Requirements for Patent Applications Containing Nucleotide Sequence and/or Amino Acid Sequence Disclosures;
2. Statement regarding sequence submission;
3. A substitute sequence listing in computer readable form and two copies of the substitute sequence listing on CD-ROM;
4. A copy of the raw sequence listing error report;
5. Return Postcard.

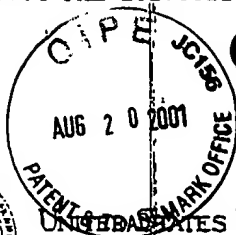
It is respectfully requested that the attached postcard be stamped with the date of filing of these documents and mailed to us.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 08-2461. A duplicate copy of this letter is enclosed.

Sincerely,

Linda T. Parker (Reg. No. 46,046)

LTP/bjk  
Enclosures



UNITED STATES PATENT AND TRADEMARK OFFICE

Page 1 of 1

Commissioner for Patents  
UNITED STATES PATENT AND TRADEMARK OFFICE  
WASHINGTON, D.C. 20231  
www.uspto.gov

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/754,853	01/05/2001	Brian M. Hauge	04983.0216.NPUS01/38-21 (1)

CONFIRMATION NO. 4137

22930  
HOWREY SIMON ARNOLD & WHITE LLP  
BOX 34  
1299 PENNSYLVANIA AVENUE NW  
WASHINGTON, DC 20004

## FORMALITIES LETTER



\*OC00000006246832\*

Date Mailed: 07/02/2001

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS  
CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE  
DISCLOSURES

Applicant is given **TWO MONTHS FROM THE DATE OF THIS NOTICE** within which to file the items indicated below to avoid abandonment. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

For questions regarding compliance to these requirements, please contact:

- For Rules Interpretation, call (703) 308-4216
- To Purchase Patent In Software, call (703) 306-2600
- For Patent In Software Program Help, call (703) 306-4119 or e-mail at [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or [patin3help@uspto.gov](mailto:patin3help@uspto.gov)

A copy of this notice **MUST** be returned with the reply.

Customer Service Center  
Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE

RECEIVED  
DOCKET DEPT.  
HOWREY SIMON ARNOLD & WHITE

JUL 05 2001

WASHINGTON, D.C.

#5  
PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Hauge et al.

Examiner: Unassigned

Serial No.: 09/754,853

Group Art Unit: Unassigned

Confirmation No: 4137

Filed: January 5, 2001

Docket: 1193-3  
(04983.0216.NPUS01/38-21)

For: NUCLEIC ACID MOLECULES AND  
OTHER MOLECULES ASSOCIATED  
WITH SOYBEAN CYST NEMATODE  
RESISTANCE

Dated: August 16, 2001

I hereby certify this correspondence is being deposited  
with the United States Postal Service as first class mail,  
postpaid in an envelope, addressed to: Commissioner  
for Patents, Washington, D.C. 20231

Date: August 16, 2001

Signature Barbara Kemmleir

Commissioner for Patents  
Washington, DC 20231

**RESPONSE TO NOTICE TO COMPLY WITH REQUIREMENTS FOR  
PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE  
AND/OR AMINO ACID SEQUENCE DISCLOSURE**

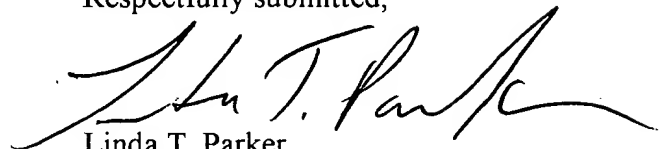
Sir:

The Notice to comply with requirements for patent applications containing  
nucleotide sequence and/or amino acid sequence disclosures mailed July 2, 2001 stated  
that the present application failed to comply with the requirements of 37 C.F.R. § 1.822-  
and/or § 1.823.

Applicants herewith submit a corrected sequence listing computer readable form  
(CRF) on CD-ROM, two copies of the sequence listing on CD-ROM identified as "Copy  
1" and "Copy 2", and a statement under § 1.821(f) and § 1.821(g).

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency or credit any overpayment to our Deposit Account No. 08-2461.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Linda T. Parker", with a stylized flourish at the end.

Linda T. Parker  
Reg. No: 46,046

Hoffmann and Baron, LLP  
6900 Jericho Turnpike  
Syosset, NY 11791  
(973) 331-1700



#4  
PATENT

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Hauge et al.

Examiner: Unassigned

Serial No.: 09/754,853

Group Art Unit: Unassigned

Confirmation No: 4137

Filed: January 5, 2001

Docket: 1193-3  
(04983.0216.NPUS01/38-21)

For: NUCLEIC ACID MOLECULES AND  
OTHER MOLECULES ASSOCIATED  
WITH SOYBEAN CYST NEMATODE  
RESISTANCE

Dated: August 16, 2001

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United States Postal Service as first class mail, postpaid in an  
envelope, addressed to: Commissioner for Patents, Washington, D.C.  
20231

Date: August 16, 2001

Signature: Barbara Kemmlein

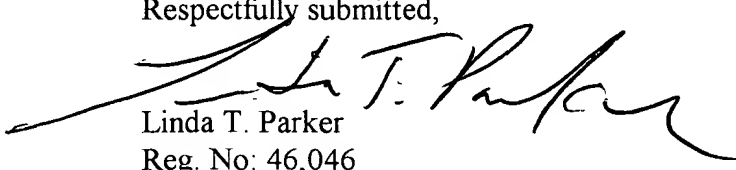
Commissioner for Patents  
Washington DC 20231

**STATEMENT REGARDING SEQUENCE SUBMISSION**

Sir:

In accordance with 37 C.F.R. § 1.821(f) and § 1.821(g), the substitute computer readable form of the sequence listing and the substitute computer readable copy submitted herewith in the above mentioned application are the same. The substitute computer readable copy contains no new matter.

Respectfully submitted,

  
Linda T. Parker

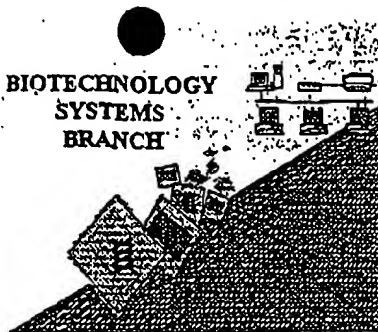
Reg. No: 46,046

Hoffmann and Baron, LLP  
6900 Jericho Turnpike  
Syosset, NY 11791  
(973) 331-1700



## RAW SEQUENCE LISTING ERROR REPORT

BIOTECHNOLOGY  
SYSTEMS  
BRANCH



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/754,853

Source: OIPE

Date Processed by STIC: 1/23/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY.

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

### Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO).

Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>



OIPE

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/754,853

DATE: 01/23/2001

TIME: 15:39:47

Input Set : D:\pa\_00330.txt

Output Set: N:\CRF3\01232001\I754853.raw

Does Not Comply  
Corrected Diskette Needed*sup. 5, too*

1 &lt;110&gt; APPLICANT: Parnell, Laurence D.

2 Hauge, Brian M.

3 Parsons, Jeremy D.

4 Wang, Ming Li

6 &lt;120&gt; TITLE OF INVENTION: Nucleic Acid Molecules And Other Molecules

Associated With

7 Soybean Cyst Nematode Resistance

9 &lt;130&gt; FILE REFERENCE: 38-10(15910)B

OK 11 &lt;140&gt; CURRENT APPLICATION NUMBER: US/09/754,853

11 &lt;141&gt; CURRENT FILING DATE: 2001-01-05

11 &lt;150&gt; PRIOR APPLICATION NUMBER: US 60/174,880

13 &lt;151&gt; PRIOR FILING DATE: 2000-01-07

15 &lt;160&gt; NUMBER OF SEQ ID NOS: 1123

17 &lt;210&gt; SEQ ID NO: 1

18 &lt;211&gt; LENGTH: 127197

19 &lt;212&gt; TYPE: DNA

20 &lt;213&gt; ORGANISM: Glycine max

22 &lt;223&gt; OTHER INFORMATION: Seq ID: 515002\_region\_G2

24 &lt;400&gt; SEQUENCE: 1

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30	ctgtracatt	gtgtgcttcc	ctgtttatct	ccaccgaltc	tactcctaca	cttacaccac	180
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*insert this mandatory  
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The types of errors shown exist throughout the Sequence Listing. Please check subsequent sequences for similar errors.

1/23/01

## RAW SEQUENCE LISTING

DATE: 01/23/2001

PATENT APPLICATION: US/09/754,853

TIME: 15:39:47

Input Set : D:\pa\_00330.txt

Output Set: N:\CRF3\01232001\I754853.raw

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## RAW SEQUENCE LISTING

DATE: 01/23/2001

PATENT APPLICATION: US/09/754,853

TIME: 15:39:47

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Output Set: N:\CRF3\01232001\I754853.raw

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206	aattttatta	tttcattaaa	aataaaaaa	aaaatggtaa	tcataaalll	aagltatgtt	5460
208	taaaaglaaa	tccllalaagt	caataagaaa	aaattatttc	tcaaacactt	ttatttgatc	5520
210	aatattttgt	aagtttgtgt	aaaaaactaa	aaattautla	aaalaacctg	atgagcatat	5580
212	atgtaattta	cttttatata	gacllaaaaa	actttatott	tttttaagat	aattttocat	5640
214	taaaaaataa	atatacutta	aattaatgay	atattttttt	atttgtatga	ttaaaaaaag	5700
216	taclalllga	aattcacact	acacattalc	aatttatcat	atttaatoag	ctgaactaaa	5760
218	ttaaalaaat	ataltanaag	attaaattaa	aaagttgagl	tacatacatt	gaaccaacaa	5820
220	gatcaaacac	tgagatatat	atttlggatc	cagagaataa	taaagggaag	gtgaaggag	5880
222	gcataacatg	ttacatacat	tgaaccaaca	agatcaaca	gtgagatatl	aattulltat	5940
224	tgtclaaala	aalllktaat	acctgaaaaa	catatcattt	tttauttatt	acttaaaaaa	6000
226	tcatttllll	caullacctc	ctagaaaaaa	aaatttagtt	ttatttlatr	atgtcattaa	6060
228	tcataatcac	gtccactcgg	tcatatgtca	tigaagtgga	taacgttaaa	ataaaatatl	6120
230	cgtgcaaaag	tgtgtagcag	taacattttt	fatgtcacat	tatcatttcc	ctaaagacaa	6180
232	ctaaccacaa	ataataaaat	aaaattgaat	tttttttaaa	atacttaact	ttaaacaaata	6240
234	aatatttaaa	aaataactaa	aatgatctg	tatgtccatt	atcaaaaatt	taagtaagcc	6300
236	gaattataaa	cttcttattc	agtcattgtg	gattcgctaa	caactcgtgc	tgatcgagcc	6360
238	tatagtaatt	agctctctta	gttagaaaca	ttagccctg	allalcaata	tgatgttctt	6420
240	gcacaaaaag	acaaaatgat	ttcatgattl	ttagatgaat	aagcgcagga	ttctctattt	6480
242	tcagagcga	ttaaatgaac	gcaattacga	ggcagcaatl	gcanaatgct	tcacatgag	6540
244	ctatttgcta	tttaaaatl	cactttgaca	tttttataat	taattttgtc	tcaataattc	6600
246	gcattgacaa	tagcattaaa	ggttagctaa	aactctaatt	taaattgtta	catatttlla	6660
248	aaaaaaactg	agaaacatga	tttaagtttt	gttatttat	caaalactac	tataaaatag	6720
250	aaaaaactta	caaccttcaa	atgtactaga	ttcggatttt	ttttatagaa	aatatttttaa	6780
252	aattaaatgc	calactcaac	agtcaacacg	gtatttcaca	gtcccttaga	atttcaacaa	6840
254	aaatcaacca	agtaacataa	attagttgac	tgaaaaaatg	aattaaatta	aaaggcagtc	6900
256	atggatatac	accaggcata	taattttaca	taacctcacc	cgagcaaaag	cggttttaac	6960
258	agataatggt	ccagtacgtg	ttaggaalct	aacutgctgg	caatgtcaaa	aaaataacag	7020
260	caltgatggt	tgttaagatct	aaaatactta	caaagctagg	aggaggacaa	aatggataca	7080
262	tatttgatg	tacatgtaat	aactctatct	agacaggcta	gttgagatac	ataagaataa	7140
264	gaacgtgtct	gtctcagtaa	agggcagaca	caagtagaag	tagaagaaac	aaatagcagt	7200
266	gcacatgtac	ccggcacgal	gaaatcatcc	gagatggagc	agccgaaggt	ttgtggggag	7260
268	ctctccagc	aacagctgga	gcaactgcac	gcccglcgt	tcfltgttgc	tcactgttag	7320
270	gcaatgggtt	tgatgaagtc	tcatttgag	aaaggggcat	cctcttgcc	agactcagat	7380
272	cctgacctac	agatgcatgt	agactgtata	taagcaaaag	gaataaaag	ggagacggga	7440
274	agaacagtgc	taaggtagaa	aaaagccttt	gcalcaagca	ccaggcaaat	ggttaagaga	7500
276	ccaagaactc	acaagaagtc	agcttcattg	cctaagtaga	atgattagaa	ctaaagctaa	7560
278	aatatattag	cttataaaact	caaagtacta	tgactcacia	tttgagcgtg	accacgctag	7620

## RAW SEQUENCE LISTING

DATE: 01/23/2001

PATENT APPLICATION: US/09/754,853

TIME: 15:39:48

Input Set : D:\pa\_00330.txt

Output Set: N:\CRF3\01232001\I754853.raw

280	cttcttgttt	ccctatcaa	ataccaaucg	gtatcctgtc	atgaagttcl	ctgccaaaaa	7680
282	aatttallag	tttaagatc	aaagtatctt	ttaatcccat	attccagagt	atgggtaate	7740
284	agtagacttc	gataaggaaa	atatttaact	tacgtccgat	tgttcccata	tctccttcag	7800
286	ttggctglat	gyclaaacaa	aatccaatga	ctcctgtcac	aggaaggacc	gatctaacta	7860
288	atttagctac	aagccgacaa	ctattcttat	aatgaagtc	cttgraacal	ctttaattat	7920
290	algtcaaaat	tttagtccag	gatcaattaa	ttcacaccca	cctcattgcc	atagatataa	7980
292	aatacggggt	catagaccac	aaactgtgtt	ttctglllgu	acgtgagagt	taagctggga	8040
294	acclttggca	actcttgcyg	actgtctcag	aaaagaataa	taaataaata	aagccatcaa	8100
296	agagaccaga	aaattctacc	aattaggaaa	tcatgcacca	ucgcagagag	gaagagagac	8160
298	agagatctat	ccagaaaact	caactgggaa	cataacaata	ctcccaagga	gatccttcaa	8220
300	agctagatct	agaaccattt	acttgtttga	ctaactatca	caaataaaat	catatttaaa	8280
302	gactgagcag	aaatttacat	taatggauit	tayaaaacta	uagtacctcc	tcagctattg	8340
304	ctccatacac	atgaccagga	agaaaagttaa	atgatgtccc	gotatcaacc	tycaclttaa	8400
306	aacttgytat	tttaagacaa	gaattcccaa	cacacatgta	ctccactcca	ataatgtagg	8460
308	ctgaactgac	caggaatttt	ctcttaatta	gcactgtgac	accatcttct	aaagtctatt	8520
310	ttagtycagt	gaaacattgt	aaactaattt	aaagtacaga	atttcatact	ataatccatc	8580
312	aaaaggcaag	antgaagtay	acigtgtgat	ggttgggtccc	tgggtcccaa	aaantattct	8640
314	accagatcca	tcttcattaa	agcacaagga	aaagaattcg	tgatttaate	ctgatttagc	8700
316	aagaaaactt	ggaactgaac	tctcccccag	ccccaaactt	aataggccat	ctggagcaac	8760
318	cccatccaaa	taaccaccac	tttgtctcat	accacacctg	cattcaacea	aactgacgtc	8820
320	agagaaaaaa	ccaggaaact	tttttttaat	taaaaaaga	atacatcacc	agggaaagtg	8880
322	atgttgaaat	aacaaagaca	gggagtgtag	ccacacccaa	gaacuaatgg	agcctgaaca	8940
324	gatgagtlly	plaaactlga	gcctgactga	agatgcagla	lgloctaac	caacaatcca	9000
326	gaactcgacg	tggtctccga	caagttaact	acnatgtatg	gacactgctg	ctgtgaactt	9060
328	ttacaattcg	hacccttctc	acacuaactga	tgactgcaag	atagatgctt	actggataag	9120
330	gaccgagacg	gactatactc	attcagatct	ctatcctgcu	taatagatgc	cccatatgtg	9180
332	uaggagcacc	tgccaatcaa	ttactggaaa	taagtgetaa	acctgrrata	gattctaaac	9240
334	ctcattgaac	cattacactc	agagagguaa	catgttttgt	gttagtgtca	cattaaactc	9300
336	gaattgaaac	cttatccaat	caaggatttt	caattcgcac	gattaaactat	ttgttaaca	9360
338	atcaataaaa	caagctaata	taatccgala	ttttattatt	tttattacat	ttaagatatt	9420
340	gagactacaa	gttacatagt	agagttaaacc	aacatttttag	ttcctgaag	tataaagcct	9480
342	gtcacataaa	acattagtcc	ccaaactcaa	gaacttcaa	aaaagtccct	gaagctgcaa	9540
344	tccgccaaatc	gcattaatcc	aaagtataaa	aaaaatatgt	gacttaatga	taataattatc	9600
346	ntatgttttaa	gaguccaaaa	tlcuaagatg	aaacaactag	aaactccctg	gactaatttt	9660
348	aaattttcct	tagtttgaag	aaactaatg	acacccctgt	atgtttaate	atagtttact	9720
350	ctacatagta	agagaaatca	aagaaaaaaa	tagatttagt	atgataattca	taccagattg	9780
352	gaatagtaac	tgcattgacaa	tggagacac	tgtacgcaat	caacagggaat	ccaaaggaga	9840
354	tcactccctg	cgtrcaacgc	cacagagaaac	gaagtgtctg	gtgttcctat	atcaatccac	9900
356	gtgtaatgca	acctaatac	cagagaogca	ttatcagatt	caaacogaa	aaaaggagac	9960
358	aattagggat	tattattat	attattatna	ttattaccag	ccgaagtctg	tgccgagcga	10020
360	catcgttttg	ctaccgtgag	aagguaacag	tagctggtag	cgtgcgcctc	cgactttgat	10080
362	cttgcgcggg	agaatgtcgc	cggtgagaa	catccgtag	tagcccatgc	tccaccggtc	10140
364	cggccagtat	cgggtcggag	gccgaacggg	tttcatctcg	tggcggaagc	ggtgaacgag	10200
366	gcgggcggaa	aacgtgatcg	gaaccggcat	tgcgcgagcc	gttaccaaaa	gcaacaaaag	10260
368	cagcaaccgc	caccgcacgc	agatcgagat	ctggcaactg	caactatctc	gatgcctcgt	10320
370	tttaactgat	tttaagtaacg	attagtgtta	attagttagg	tgagggtgag	cagtgtgcac	10380
372	catcatcgcc	atggatcgta	tgcgttcgtc	cctgtgtggc	tgtgtgtgag	tgagagttag	10440
374	agtgaagatg	aggggtggata	aaacaaaaca	acaaaactag	cgcattttgt	tcggggtgga	10500
376	attagactgt	tactaagtgc	ttaattaatg	gggaaaggaa	agtggtatga	ttagtgtttg	10560

## RAW SEQUENCE LISTING

DATE: 01/23/2001

PATENT APPLICATION: US/09/754,853

TIME: 15:39:48

Input Set : D:\pa\_00330.txt

Output Set: N:\CRF3\01232001\I754853.raw

378	taacuglaag	tgattattgt	aatgatgat	taggaggaa	aagggtgcaa	cactgcagcy	10620
380	acgaagcqua	acgtcacgcy	cgggtggccc	acnatgtctt	tacgtgcttg	agaatgaaac	10680
382	ggccttttct	tyccgaggtc	gattttgtct	tyccacgtg	ggcccccctt	cattttattat	10740
384	tattcclllc	cllllacgaa	ataaaaaata	aaaaatcaaa	caaaacaggc	uaaagggttc	10800
386	ttaagtattt	agtttcattt	tataaataaa	ataaatgcct	agatctagta	ataatcacaa	10860
388	ttatglgglg	lgggtcagga	ataagcttc	acacacgaaa	aaagaaatct	tgcaagttaa	10920
390	cagctgaaca	catttaattgt	llllaaagaa	atctaaagtl	altgaagaaa	acaactgaga	10980
392	catgalaall	tgactaatta	atacttttag	tgaaggagac	gtatttttaa	agalaagata	11040
394	laattatcat	ataattaat	aaaataaata	acgatttaata	tttagtaatt	tcattctctg	11100
396	taatatattt	atgaltctca	ctcaactgat	aattttcaag	ataatagtta	taattgcact	11160
398	ctgllggaac	tttaagttct	tctccaaaga	aaaaaaataa	cattttttct	cccccttgct	11220
400	ctgttctctt	ctcttgcctt	ctccaattct	gttcacaatc	gtaggtgtgt	cggccaatga	11280
402	tglttcatga	taaatatcaa	alacglttgc	aalgaalccg	galyacaaay	ctgagacaaac	11340
404	caatagtgtg	agctaaccaa	tgcacaagt	ctccaatcaa	taaaacaggc	ccaaaagggt	11400
406	gggghygtcc	aaatgtkgaa	ggtlaagtta	agtaggtgtg	tcacgccttg	gatttgctct	11460
408	gtgttaaatc	gtcaccraat	ccaaacaaaa	aalatllggat	ggatllgtgt	gttttctctt	11520
410	traaatcgac	clcatctgtt	catgaatgaa	tttgatcgag	atggatttgt	tatttaaaad	11580
412	agttcdaaaa	laattttctt	aaatttttta	aaatattttt	taaatattac	aatacaatta	11640
414	cttgtaatat	agltgcataa	asasaattaa	ccaccaattt	caatgcacat	attaactgca	11700
416	ctctaaatc	aaattgaaau	caagttaacca	acaaacattt	aatttatana	gcaaatataa	11760
418	ctaaatcana	ttccaacctt	aaagcagata	acaaattgtc	ttgaaaactt	agtautctta	11820
420	taaatgtacac	actagtacaa	aataaactta	aaalcalccc	aaandaata	taatactaca	11880
422	alagaacac	tgcaatata	tgataatgtc	agacaattgc	tcnaccagac	aacctcacac	11940
424	alagaacac	ggtaagcaaa	agatcaaaat	caattatrat	acraataata	aatttaaat	12000
426	atgctatgca	ggaanaagaa	atatgccaaa	aaagaaatca	lalcatana	laagttaaaa	12060
428	etattacolt	agaactaat	agtcctct	cccaatacta	atactcctaa	gaatagtcca	12120
430	agtaataatc	ctaaacataa	cattatttaa	agtcaaaaca	tacaacttta	aaaaatgttt	12180
432	tazaaagtcc	atcataacat	aatatcaatt	tatatccata	tlgladucaa	acggaaaaaa	12240
434	aaagagaaac	taattattgaa	tacctagltc	catctttttt	gttlcatcta	atlcuactcg	12300
436	tcaatgccc	taactttgct	tattagtttt	gagtcatttt	tgggtacaaa	tcaagctttc	12360
438	aaagtaaatg	ggacttaaa	aaactacaaa	atggatcaag	caclcaacct	lltgtactaa	12420
440	atgcagactc	aaatgacaca	atagacataa	gaatgaccaa	tatatctcta	gccatgaaa	12480
442	aaataacatg	atatttggat	gtttlcatit	tccaccatgc	caaaatgtca	aatccaagac	12540
444	cgcatctctc	attgtcaatc	tttaaataca	tatccaactc	actcctttgc	tattccaccac	12600
446	atcttttata	cattttcaat	ctaaattggc	cgtcccaatc	ctcatcctca	tcaacatcgt	12660
448	tggtattacc	ttgtgaagca	tggtatynag	ccaaagtact	agaattacta	ctatcaatgg	12720
450	aaataggalg	ctctgaagca	tattcaacaa	acattttttt	tataagatca	tccaattttt	12780
452	tcagcctctc	tttggtttgg	tcaacacctt	gcattttctt	aaaacaaaac	tcaatataat	12840
454	caaatctata	acacagatca	agaaaagcag	tcacaaataa	aagatagcta	atctgacac	12900
456	ctctcaata	ctgtgtaaa	ttgagttgtg	tattagttgt	ctcttttgta	tcacgggac	12960
458	atctctatgc	ctccatctat	ttaggcattt	ctgaatagta	accaacttct	taaagaaatt	13020
460	cttagctgta	acatgtagt	accagaaaa	aaaaattgca	tcatagaaaa	ctttcaaaaa	13080
462	actcacaaac	accagagcat	gtttctaatc	ctctctttta	ggacatctct	cttcaactatt	13140
464	tagaagaglg	agcacataag	cagcctcaac	atactcataa	cgattgaag	ctgtttcaaa	13200
466	ttttcagcaa	catctaacat	caaaataagt	gagtgaccca	gaaaaaaaaa	ttgcatcata	13260
468	gaaaactllc	aaaaaactca	caaacacacg	agcacgtttc	taatccatct	ctttaggaca	13320
470	tctctcttca	ctatttagaa	gagtgagcac	atatgcagcc	tcaacatact	cataacgatt	13380
472	gaaagcttgt	tcaaatcttc	agcaactctt	aacatcaaat	aagtgaggtt	ccatctggtt	13440
474	ggcacattaa	gtgttagcat	tgcctttgaa	ttacacataa	cgtctctcgc	acacctcttt	13500

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

FYI

## VERIFICATION SUMMARY

DATE: 01/23/2001

PATENT APPLICATION: US/09/754,853

TIME: 15:39:49

Input Set : D:\pa\_00330.txt

Output Set: N:\CRF3\01232001\I754853.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No  
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:5859 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 2  
L:6021 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 2  
L:17361 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 3  
L:35814 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:35816 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:37292 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:37294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:37656 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:37658 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:37660 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:37662 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:37668 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:44619 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 8  
L:44780 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 8  
L:45076 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 9  
L:45382 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 10  
L:45680 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 11  
L:45985 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 12  
L:46281 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 13  
L:46427 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 14  
L:46589 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 14  
L:46883 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 15  
L:47031 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 16  
L:47193 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 16  
L:47489 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 17  
L:47795 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 18  
L:48095 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 19  
L:48398 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 20  
L:48698 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 21  
L:49001 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 22  
L:49301 M:361 W: Invalid Split Codon, Sequence data for SEQ ID#: 23